What is claimed is:

1. A method for manufacturing an optical coupler/splitter that is provided with plural ports for performing light input and light output inside a cladding layer formed from a glass material, and in which a waveguide core is formed that optically connects said ports, comprising the steps of:

setting at least one portion between said ports as a refractive index adjustment area and for forming portions of said waveguide core other than the refractive index adjustment area;

inputting signal light into one port and monitoring the signal light outputted from other ports; and

adjusting optical characteristics of said optical coupler/splitter by adjusting refractive index of said refractive index adjustment area by focusing a laser beam during the monitoring.

2. The method for manufacturing an optical coupler/splitter according to claim 1, wherein the portions of said waveguide core other than said refractive index adjustment area are formed by focusing a laser beam.

3. A method for manufacturing an optical coupler/splitter that is provided with plural ports for performing light input and light output inside a cladding layer formed from a glass material, and in which a waveguide core is formed that optically connects said ports, comprising the steps of:

forming said waveguide core;

inputting signal light into one port and monitoring the signal light outputted from other ports; and

adjusting optical characteristics of said optical coupler/splitter by focusing a laser beam into said waveguide core between the input port and the output ports during the monitoring.

4. The method for manufacturing an optical coupler/splitter according to claim 3, wherein

said waveguide core is formed by focusing a laser beam.

5. A method for manufacturing an optical coupler/splitter that is provided with plural ports for performing light input and light output inside a cladding layer formed from a glass material, and in which a waveguide core is formed that optically connects said ports, comprising the steps of:

forming said waveguide core;

focusing a laser beam into said waveguide core;

scanning said waveguide core by shifting the focal point of said laser beam along said waveguide core repeatedly; and

adjusting optical characteristics of said optical coupler/splitter by changing the number of scanning.

6. The method for manufacturing an optical coupler/splitter according to claim 5, wherein, the number of scanning is determined beforehand based on the relationship between the optical characteristics of said optical coupler/splitter and the number of scanning.

7. The method for manufacturing an optical coupler/splitter according to claim 5, wherein said waveguide core is formed by focusing said laser beam.

8. The method for manufacturing an optical coupler/splitter according to claim 6, wherein said waveguide core is formed by focusing said laser beam.

9. The method for manufacturing an optical coupler/splitter according to anyone of claims 1 to 8, wherein at least one of said laser beam used to adjust said optical characteristics and said laser beam used to form said waveguide core is a femto-second laser.

10. The method for manufacturing an optical coupler/splitter according to anyone claims 1 to 8, wherein said optical coupler/splitter is a Y-branching optical splitter.

11. The method for manufacturing an optical coupler/splitter according to claim 9, wherein said optical coupler/splitter is a Y-branching optical splitter.

12. The method for manufacturing an optical coupler/splitter according to anyone of claims 1 to 8, wherein said optical coupler/splitter is a tap coupler.

13. The method for manufacturing an optical coupler/splitter according to claim 9, wherein said optical coupler/splitter is a tap coupler.

14. The method for manufacturing an optical coupler/splitter according to claim 10, wherein said optical coupler/splitter is a tap coupler.

15. The method for manufacturing an optical coupler/splitter according to claim 11, wherein said optical coupler/splitter is a tap coupler.

16. A method for adjusting optical characteristics of a planar lightwave circuit device that is provided with plural ports for performing light input and light output inside a cladding layer formed from a glass material, and in which a waveguide core is formed that optically connects said ports, comprising the steps of:

inputting signal light into one port and monitoring signal light outputted from other ports; and

adjusting optical characteristics of said planar lightwave circuit device by focusing a laser beam into said waveguide core between the input port and the output ports during the monitoring.

17. The method for adjusting optical characteristics of a planar lightwave circuit device according to claim 16, wherein the step of focusing a laser beam into said waveguide core is further comprising the steps of:

shifting a focal point of said laser beam along said waveguide core repeatedly; and adjusting optical characteristics of said device by changing the number of scanning.

18. The method for adjusting optical characteristics of a planar lightwave circuit device according to claim 16, wherein the step of adjusting the optical characteristics of said device is lengthening an effective optical path length of said waveguide core by raising the refractive index of the portion of said waveguide core by focusing said laser beam.

19. The method for adjusting optical characteristics of a planar lightwave circuit device according to claim 17, wherein the step of adjusting the optical characteristics of said device is lengthening an effective optical path length of said waveguide core by raising the refractive index of the portion of said waveguide core by focusing said laser beam.

20. The method for adjusting optical characteristics of a planar lightwave circuit device according to anyone of claims 16 to 19, wherein said laser beam is a femto-second laser.